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ABSTRACT

The Degrees of Reading Power Test was developed to address some existing problems in testing comprehension. The test design reflects the need to consider problems of passage dependency, difficulty of questions, tests for continuous text, and sensitivity to gains. It emphasizes a set of response options controlled for familiarity, a text that is informationally adequate to determine the best choice, and that only one answer is correct. It employs a structural cloze format. A language/centered test such as this one encourages students to apply an array of language skills. Some possible instructional techniques that result from the introduction of a meaning-based testing instrument might include a language-centered curriculum using changes in word order; the addition of words, phrases, and clauses; and the use of discourse markers. Vocabulary development should include strategies with synonyms, classifications, connotative and denotative meanings, and multiple meanings. Instruction should be directed to such language cue systems as semantic meanings of words; word affixes influencing meaning and function; phrase and clause structures; identification of antecedents of pronouns, proverbs, and anaphora; and structures in paragraphs and structures modifying sentence, paragraph, and section meanings. (TJ)

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MEANING - BASED TESTING AND CURRICULUM IMPLICATIONS

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Meaning-Based Testing and Curriculum Implications

The Degrees of Reading Power Test (DRP) has been developed to address some existing problems in the testing of comprehension performance. The test design reflects the need to consider the problems of passage dependency, difficulty of questions, tests for continuous text, and sensitivity to gains. The DRP utilizes an operational definition of reading comprehension as the ability to use syntactic and semantic information provided by the intersentential context in prose at different levels of difficulty to complete (restore) a missing section of the message. The instrument characteristics emphasize: first, a set of response options controlled for familiarity; second, a text that is informationally adequate to determine the best correct choice and; third, that only one answer is correct. A structural cloze format has been employed with twelve passages, seven deletion per passage and a five choice option for each deletion.

With the recent interest in competencies and the continued concern with reading test scores (Farr, 1977), instructional staff have requested assistance in improving the teaching of comprehension skills. The introduction of the DRP as a statewide assessment instrument has the potential for significant changes within the instructional program as well as data collection.

The supporting technology for this evaluation tool permits teachers to readily establish instructional groups based on the scoring pattern within their class since DRP units (total correct answers) may be converted into the traditional independent, instructional and frustration levels. In addition, readability levels (Bormuth, 1969) of both instructional materials and free reading materials, such as magazines and newspapers, have been related to DRP units and made available for teacher use. Instructionally, the use of the DRP as a testing instrument encourages a language centered approach to the teaching of reading.

The purpose of this paper is to analyze the processes of reading and possible curricular changes which result from the introduction of a meaning-based testing instrument. In other words, the paper addresses the issues raised by test format and the types of instruction which might be introduced in classrooms to influence outcome measures such as the DRP. The paper is organized to discuss first, the issues of the reading process and secondly, the current changing theoretical base of information processing as a necessary foundation for more specific instructional techniques.

Curricular Implications

Most reading activity in the middle and later grades is principaly concerned with concept attainment. Klausmier (1976) reported the need for three types of analyses when discussing concept attainment: content analysis, behavioral analysis and instructional analysis. He suggested the need in instructional

analysis to consider elements such as the characteristics of learners, the language functions involved, types of material, task requirements and the amount of guidance required from the instructor.

Much recent literature supports the need for more active processing of textual material, encouraging readers to interact with the material. Chall (1977), for example, concluded that one possible factor contributing to declining SAT scores is the general lack of student interaction with instructional material beyond the level of checking or circling as an instructional task.

Two language related strategies seem to categorize mature reading performance as described by Gibson and Levin (1975): selecting critical language features by filtering out redundancies; and recognizing critical relationships operating within a language sample.

The format of a language centered test encourages students to apply an array of language skills developed through experience and instruction-recognizing organizational patterns, applying context cues, expanding memory load and recognizing redundancies. Marilyn Adams (1977) highlighted the function of semantic intersection and syntax as related to processing strategies. In addition, the interdependence and simultaneous operation of "bottom-up and top down" processing of automatic language skills received attention in her report.

A review of general language operation might be the initial thrust in analyzing the avenues open for curriculum revision.

Bower (1967) began by suggesting an anlysis of phrase structures within sentences, followed by a study of logical structures between sentences, concluding with an analysis of the semantic elements operating at the paragraph level. Recent research addressing language processing strategies (Anderson, 1977; Marchall and Glock, 1978) reflect a semantic analysis. Theorists, such as Frederiksen (1972), have identified four units for language study: concepts (content); relations (two or more concepts); implications (two or more propositions); and finally semantic structure. All items within this assending order of studies appear useful in pursuing the question of how readers extract particular types of information, of how the readers organize semantic information obtained from text material, and of how prior experience with language cues and topics influence processing strategies. For their study Marchall and Glock (1978) attempted to combine elements from Frederikson's (1972) four language units with Grime's (1975) three types of organization or structures within passages of content structure, cohesion structure and staging structure

Classroom staff faces the task of translating this theoretical base for language into instructional techniques. One obvious starting point is to generate a language centered curriculum which focuses on the characteristics of language, reader and text. The language features of how syntax and semantics interface may be addressed by changes in word order, the addition of words, phrases and clauses and the use of discourse markers.

Instructional activities which may influence global reading measures such as the DRP may be developed at the word, proposition and multiple sentence levels (Pearson, 1977). General vocabulary development should include strategies with synonyms, classifications, connotative and denotative meanings, and multiple meanings. Paraphrasing, figurative language and context analysis have been advocated at the proposition level (Gibson and Levin, 1975). The importance of discourse markers should not be overlooked in the comprehension of multiple sentences, especially when passages have been subjected to a cloze procedure (Richards, 1975-76; Whalmsely, 1977). In general, instruction should be directed to at least the following language cue systems (Doake, 1976):

1. semantic meanings of words;
2. word affixes influencing the semantic meanings and syntactic functions of words;
3. phrase and clause deep structures as utilized in sentences;
4. surface and deep semantic structures governing changes in word meanings;
5. identification of antecedents of pronouns, proverbs, and anaphora;
6. structures included in paragraphs and structures modifying sentence, paragraph and section meanings.

Pearson (1974-75) hypothesized that readers engage in a synthesizing process, linking together structural components.

With this in mind, the processes of categorizing words and sentences, identifying key words (Fitzgerald and Connors, 1977), summarizing, outlining structured overviews (Herber 1970) clearly emphasize organizational skills reflected in active language processing at the instructional level. Sullivan (1978) reviewed the reading strategies of good and poor readers and reported the relative importance of qualifying terms, word clusters, superordinate relationships with propositions. She advocated the development of selective comprehension strategies of paraphrasing, summarizing, identifying critical word combinations, searching for supportive examples, and making deductions.

In sum, the introduction of a comprehension measure with a meaning-base should influence the curriculum offerings. A language centered, active processing mode of instruction would appear more responsive to the task defined by the DRP. Much new information has been generated over the past decade concerning our understanding of the comprehension process, but much still remains unclear. What is clear is that the instruction within the classroom has not kept pace with this new information. The introduction of a new testing instrument may help to reduce this gap.

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